GFE Job Sheet 8: Editing Grids in the Temporal Editor

Objective

This job sheet will familiarize the user with the Temporal Editor.

Procedures

Up until this point, you have been using the Grid Editor in combination with the Spatial Editor. This Job Sheet introduces the Temporal editor, which presents data as a time-series and provides viewing and editing capabilities. Since time series presentations are typically based on a point, and the GFE uses grids, there must be a mapping between the grids and the time-series. An edit area in the Spatial editor is sampled and then presented as a time-series.

A. Editing Scalar Data Temporally.

Purpose: To modify scalar grid values using the Temporal Editor.

Note: Certain features of the Temporal editor will not work properly if there are any (time) gaps between grids. For this portion of the exercise, we will use the temperature grids (scalar data). <u>Use the procedure from job sheet 4 to interpolate a 24 hour range of Temperature data. You will use this range for most of this job sheet</u>. Note that it is not necessary to have interpolated data to use the temporal editor, but some features will not be available if you do not first interpolate the data.

1. Select the *Toggle Grid Manager/Temporal Editor* button on the *button bar*.
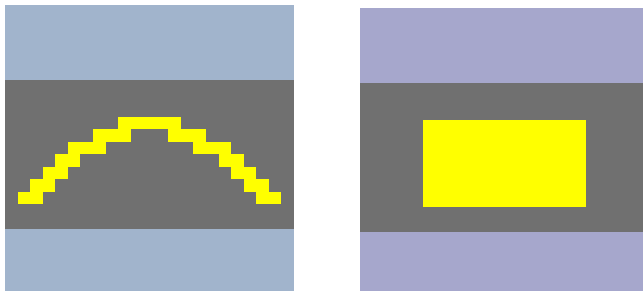
2. Select the *Toggle Vertical/Horizontal* display button on the far left of the button bar and choose the over/under viewing mode.
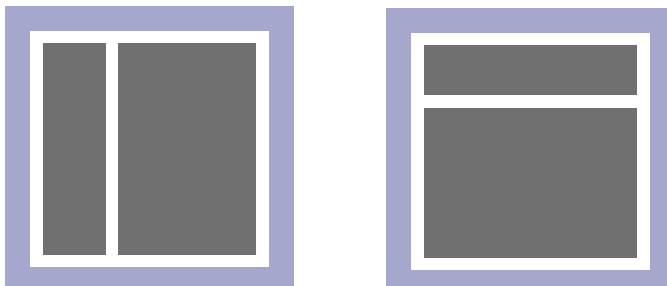
3. Make sure that the *Temporal Editor Mode* is *Relative*. This is set by going to the *GFE* pull-down menu and selecting *Editing Preferences*, then making sure that the "*Temporal Editor Mode: Relative*" is highlighted. This means that the temporal editor is in Relative mode. In other words, if the button is selected, the mode is Relative. Otherwise, the mode is Absolute.

4. Select the Temperature (T) weather element (if it is not already selected) and make it editable.

5. Create a small edit area of interest using the *Draw Edit Area* tool. This is actually very important because you will not see any data in the Temporal Editor without an edit area displayed on the Spatial Editor.

6. Scroll down to the Temperature area of your *Temporal Editor*. You should see four temperature related weather elements. Deselect *MinT SFC Fcst*, *MaxT SFC Fcst*, and *Td SFC Fcst* by clicking on the name of the weather element, turning it black (off). Only *T SFC Fcst* should be colored (blue). You should see colored horizontal and vertical bars in the temporal editor area. The bars are the sampled values from the grid.
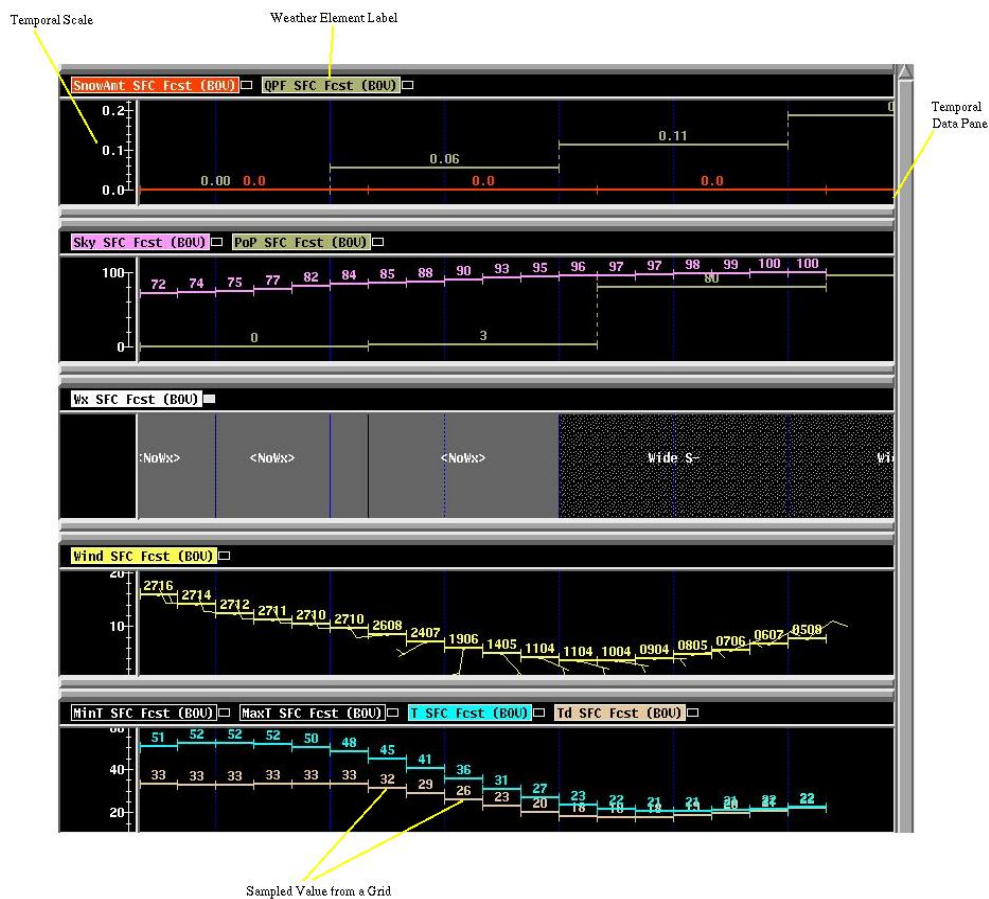
7. You can adjust the Temporal Editor display various ways. You can vertically expand the size of the Temporal Editor window by placing the *cursor* on the bottom edge of the pane and then *dragging* it to the desired size. You can also place the *cursor* to the *left of the scale* and use the *right mouse* button to select either *Full View* or *Fit to Data*. You can also click *both* buttons simultaneously to the *left of the scale* to zoom in or click the *left* mouse button to zoom out. To *pan* the display, just press the *left mouse* button and *drag* up or down to the *left of the scale.*

8. Find the position in the time series that represents the first grid of the data you interpolated. This point is represented by the *yellow dotted line*.

9. You can edit the temporal data by clicking with the *left* mouse button on a value either above or below the one you are editing. For example, click about 10 degrees above a sampled value (numbered bar) in the Temporal Editor. You can also press the *left* mouse button over a sampled value and drag it vertically to the desired location. You can change a series of grid values by dragging the mouse horizontally and watching the temporal data change. (Notice that the data in the edit area of the Spatial Editor changes too.)

10. Click on the small box to the right of the *T SFC Fcst* element in the Temporal Editor area. This will toggle a colored bar chart type view. You might find that you prefer this. Adjust the data in the Temporal Editor by holding down the *left* mouse button and dragging the cursor vertically or horizontally.
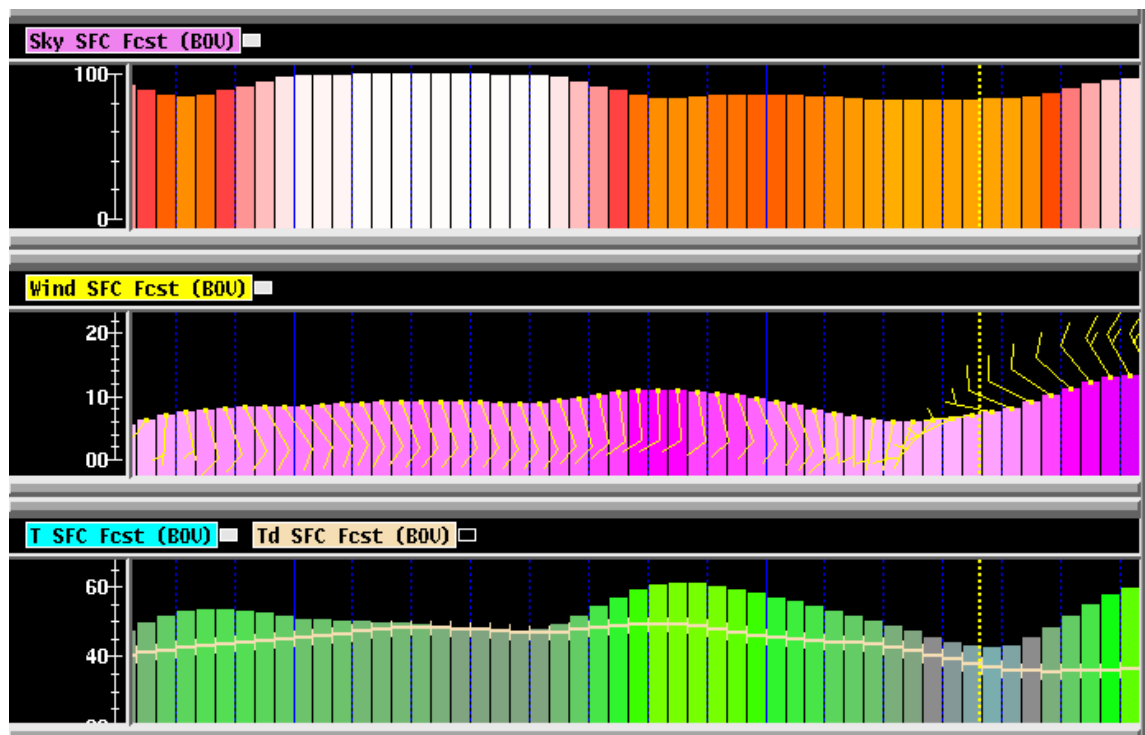
B. Editing Vector Data Temporally.

Purpose: To modify winds using the Temporal Editor

1. Go to the *GFE* pull-down menu.

2. Select *Editing Preferences*. Make sure that the "*Temporal Editor Mode: Relative*" is NOT selected. This means that the Temporal Editor is in Absolute Mode.

3. In the *GFE* pull-down menu, select *Vector Edit Mode*. Make sure that "*Both*" is selected. This will allow both magnitude and direction to be edited.

4. Select the wind element (Wind) on the Spatial Editor and create an edit area of interest. You can use the area that you previously defined if it has not been cleared.

5. Scroll to the Wind element in the Temporal Editor.

6. Find the data point in the time series that represents the grid displayed on the Spatial Editor. This point is identified by the *dotted yellow line*.

7. To change the magnitude, you simply place the cursor above or below the desired point and click the left mouse button. As an example, click about 10 knots above the data point. You can also press the left mouse button and drag the cursor vertically or horizontally to change the magnitude of the wind element.

8. To change the direction, move the cursor over a data point then press and hold the *shift* key. Then, hold the *left* mouse button and adjust the direction by moving the cursor <u>vertically</u>. To change the direction for a series of data points, sweep the cursor <u>horizontally</u>.

C. Edit Weather data Temporally.

Purpose: To modify the weather grids using the Temporal Editor.

1. Make sure that the *Temporal Edit Mode* is "*relative*".

2. Select the Weather element (Wx) on the Spatial Editor and create an edit area of interest. You can use the area that you previously defined if it has not been cleared.

3. Scroll to the Wx element in the Temporal Editor.

4. Find the position in the time series that represents the grid displayed on the Spatial Editor. This point is identified by the dotted yellow line.

 5. Select a Pickup Value for the Wx element.

6. You should see the Temporal Editor paint the same color and pattern of the weather element Pickup Value. The Spatial Editor will now show the edit area with the new value. Click on another point in the weather pane of the temporal editor to assign that value to other grids.

The wind and weather exercises demonstrate how the Temporal Editor (TE) Absolute mode works. Every time you make a change to the temporal value, that value is assigned to the entire area you selected in the spatial editor. TE Relative mode works differently in that the relateve change is applied to each grid point in the selected area. This preserves the relative gradients in the area which is sometimes very desireable. For Example, if you made a +5 degree change to your temperature time-series, 5 degrees is added to every point in the selected area.